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Media Advisory: NASA Cooperative Airborne Laser Mapping Studies Katrina Damage

Through a cooperative research program NASA, the U.S. Geological Survey and the U.S. Army Corps of Engineers are exploring the use of innovative airborne laser mapping systems to quantify coastal change along the entire coastline affected by Hurricane Katrina.

Elevation data from these research instruments acquired before and after the hurricane are compared to determine the patterns and magnitudes of coastal change caused by erosion and destruction of buildings and infrastructure. Three lidar surveys were collected using two different systems. The systems were NASA's Experimental Airborne Research Lidar (EAARL), from the Wallops Flight Facility, Wallops Island, Va., and the Army Corps of Engineers' Compact Hydrographic Airborne Rapid Total Survey (CHARTS).

The impact of Hurricane Katrina was observed on Dauphin Island. Dauphin Island is a barrier island approximately 90 miles from where the storm made landfall. Storm surge inundated the island and waves transported sand landward into fan-shaped deposits shifting the entire island toward the coastline.

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A number of houses, depicted in the lidar difference plots as red rectangles, were destroyed. NASA has created a series of animations comparing the differences between the before and after elevation data sets that represent findings from the research on how major storm events can impact and change coastal areas.

Information on this cooperative effort is available on the Internet at:

http://www.nasa.gov/vision/earth/lookingatearth/katrina_poststorm.html

and

<http://coastal.er.usgs.gov/hurricanes/katrina>